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EXAMINER

EDELMAN, BRADLEY E

| ART UNIT | PAPER NUMBER |
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2153

DATE MAILED: 02/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/932,229

Applicant(s)

AHRENS ET AL.

Examiner

Bradley Edelman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 August 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

This is a first Office action on the merits of this application. Claims 1-48 are presented for examination.

Drawings

1. The drawings are objected to because Figs. 1, 5, and 7 fail to include adequate labels or legends (i.e. numbered parts 118, 120, 116, 124, 126, 128, 117, 502, 504, 702, 704, and 706 lack sufficient labels). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 15-28 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claimed invention is directed toward a "computer-readable medium" which can be a mere signal, as disclosed in the specification (see ¶34, line 5). A signal does not fall into one of the four categories in 35 USC 101, and thus is non-statutory.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 45 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In considering claim 45, the phrase "the client request identifier" lacks sufficient antecedent basis.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-3, 6-13, 15-17, 20-27, 29, 31, 34, 35, 37, 40, 41, 44, and 46-48 are rejected under 35 U.S.C. 102(e) as being anticipated by Acharya et al. (U.S. Patent No. 6,826,593, hereinafter "Acharya").

In considering claim 1, Acharya discloses a method in a data processing system for facilitating reuse of data blocks, the method comprising the steps of:

receiving from a client program a data block request identifying a data block (col. 8, lines 58-59, "user requests a Web page");

obtaining constituent data that comprises the data block and deriving a data block identifier from the constituent data (col. 8, lines 61-64, "links or pointers to images");

determining whether the data block is a registered data block in a collection of data blocks using the data block identifier (col. 9, lines 4-5, "if the user has previously registered a preferred client default setting"; col. 9, lines 50-53, "proxy checks the cache to determine if the selected version is resident");

when the data block is not a registered data block, registering the data block in the collection of data blocks (col. 9, lines 38-41, "user then selects a version of the target file," thereby registering the data block);

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generating a registration reference for accessing the data block (col. 9, lines 45-46, "MRURL"); and

returning the registration reference to the client program (col. 9, lines 45-48).

In considering claim 2, Acharya further discloses that the step of receiving comprises receiving from the client program a request data object comprising a data block identifier and at least one of the data block and a pointer to the data block (col. 8, lines 64-66, i.e. the client requests the embedded files by referring to a file identifier which is a pointer to the file).

In considering claim 3, Acharya further discloses that the step of deriving comprises the step of generating a codeword based on the constituent data (col. 7, lines 51-65, describing deriving the codewords "img256.gif," etc.).

In considering claim 6, Acharya further discloses that the step of deriving further comprises the step of deriving the data block identifier based additionally on data block characteristic information (col. 7, lines 51-65, wherein the identifier is based on image resolution).

In considering claim 7, Acharya further discloses that the collection of data blocks is a linked list of data blocks (col. 8, lines 62-63, "links").

In considering claim 8, Acharya further discloses that the step of receiving comprises the step of receiving the data block request at a registration server from a requesting program (col. 8, lines 58-67, wherein the client browser makes a request to the registration server).

In considering claim 9, Acharya further discloses that the step of registering comprises the step of adding the data block to a linked list of additional data blocks that comprises the collection of data blocks (col. 9, lines 1-5, 42-53).

In considering claim 10, Acharya further discloses that the step of generating a registration reference comprises the step of generating one of a pointer and a handle to the data block (i.e. a "link" or "pointer").

In considering claim 11, Acharya further discloses that the step of generating a registration reference comprises the step of generating a registration handle object comprising a reference to a resource allocated for the data block (i.e. a "MURL" is a reference to the memory location of the data block).

In considering claim 12, Acharya further discloses that the resource is one of a memory area allocated for the data block and a process started in connection with the data block (i.e. "MURL").

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In considering claim 13, Acharya further discloses that the step of determining comprises the step of comparing the data block identifier against additional data block identifiers for additional data blocks in the collection of data blocks (col. 9, lines 49-53, wherein the system checks if the file is in the cache by searching the file identifier against a list of stored files).

In considering claims 15-17 and 20-27, these claims present a computer readable medium for performing the same steps as claims 1-3 and 6-13 respectively, and are thus rejected for the same reasons.

In considering claims 29 and 31, the limitations in these claims are similar to those already discussed with regard to claims 1-13, and are disclosed in the same cited sections of Acharya discussed above.

In considering claims 34, 40, and 41, these claims present data processing systems and a computer readable memory device for performing no additional steps over claims 1 and 9-11, and are therefore rejected for the same reasons.

In considering claim 35, this claim contains the same limitations as claim 3, and is thus rejected for the same reason.

In considering claim 37, Acharya further discloses an analysis component comprising instructions that examine the registration handle object to determine whether a client terminal received the requested data block in response to an earlier request (col. 9, lines 49-63, wherein the file version indicator is checked to determine if the requested data block is in the cache in response to an earlier request).

In considering claim 44, Acharya further discloses that the registration data object further comprises at least one of a client terminal identifier and a client terminal request identifier (col. 9, line 5, "registered a preferred client default setting").

In considering claim 46, Acharya further discloses that the registration data object further comprises a plurality of client terminal identifiers each associated with a client terminal request identifier (i.e. client default settings for each client).

In considering claim 47, Acharya further discloses that each registration data object further comprises a registration data object pointer for forming a linked list of registration data objects (col. 8, lines 58-67, "links or pointers").

In considering claim 48, Acharya further discloses that each registration data object further comprises a data block reference to a registered data block (i.e. "links" or "pointers").

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5. Claims 1-3, 6-17, 20-29, 31, 33-35, 38, 40, 41, 44, and 46-48 are rejected under 35 U.S.C. 102(e) as being anticipated by Lewis et al. (U.S. Patent No. 6,553,376, hereinafter "Lewis").

In considering claim 1, Lewis discloses a method in a data processing system for facilitating reuse of data blocks, the method comprising the steps of:

- receiving from a client program a data block request identifying a data block (col. 5, line 51);

- obtaining constituent data that comprises the data block and deriving a data block identifier from the constituent data (col. 5, lines 60-67, "MRF file," "URL");

- determining whether the data block is a registered data block in a collection of data blocks using the data block identifier (col. 6, lines 30-32, check if in cache);

- when the data block is not a registered data block, registering the data block in the collection of data blocks (col. 6, lines 32-36, data block is stored in the cache);

- generating a registration reference for accessing the data block (col. 6, lines 37-43, "URL of the media cache"); and

- returning the registration reference to the client program (col. 6, lines 43-46).

Lewis further discloses the limitations described in claims 2, 3, and 6-13 in cols. 5 and 6.

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In considering claims 15-17 and 20-27, these claims present a computer readable medium for performing the same steps as claims 1-3 and 6-13 respectively, and are thus rejected for the same reasons.

In considering claims 29 and 31, the limitations in these claims are similar to those already discussed with regard to claims 1-13, and are disclosed in the same cited sections of Lewis discussed above.

In considering claims 34, 40, and 41, these claims present data processing systems and a computer readable memory device for performing no additional steps over claims 1 and 9-11, and are therefore rejected for the same reasons.

In considering claim 35, this claim contains the same limitations as claim 3, and is thus rejected for the same reason.

Lewis further discloses the limitations described in claims 44 and 46-48 in cols. 5 and 6.

In considering claims 14, 28, 33, and 38 Lewis further discloses:
determining whether the requested data block was previously transmitted to a client terminal (col. 6, lines 29-32, determining whether the MRF is in the cache);

when the requested data block was not previously transmitted to the client terminal, retrieving the requested data block using the memory reference and transmitting the data block to the client terminal (col. 6, lines 31-32, 36-45, the client uses the memory reference); and

when the data block was previously transmitted to the client terminal, transmitting a data block identifier to the client processing system that identifies a client local copy of the data block (col. 6, lines 33-42, "cache" copy is local to the client).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 30, 32, and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Acharya.

In considering claims 30, 32, and 39, Acharya further discloses that duplicate resources (i.e. temporary memory locations in the cache) can be allocated to the requested data block (col. 9, lines 59-64, wherein an old version of the file can be in the cache along with a new version). Although Acharya does not disclose releasing the duplicate resources, the fact that the old version has no use because it is not current would suggest to one having ordinary skill in the art to delete the old version from the cache, thereby releasing the duplicate resources allocated to the requesting data block

(i.e. analyzing the memory locations to see if a handle points to a new version of the data block stored in a new memory location, and releasing the old data block memory location if it does), in order to free up memory space in the cache. Therefore, it would have been obvious to release duplicate resources allocated to the requested data block in the system taught by Acharya. Such release would naturally come as a result of the resource reference provided in the registration handle object (i.e. after receiving the new version in the cache), as further claimed in claim 39.

7. Claims 4, 5, 18, 19, 36, 42, 43, and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Acharya, in view of what is well known in the art.

In considering claims 4, 5, 18, 19, 36, 42, 43, and 45, although the system taught by Acharya discloses substantial features of the claimed invention, it does not disclose that the data block identifier is derived in part based on a CRC or ADLER codeword, or a sequential request number. Nonetheless, Acharya does disclose that the link identifier is sent over a network (col. 8, lines 63-67). For the link to be sent across a network, it will necessarily need to be placed in an Internet packet. Examiner takes Official notice that the Web generally uses TCP/IP or UDP/IP packets and often uses Ethernet, and further takes Official notice that TCP and UDP use a 16-bit checksum sequential number field, while Ethernet uses CRC to ensure data reliability. Applicant further admits that the CRC and ADLER checksums are well known in the art (see ¶ 61 of specification). Thus, given the knowledge that TCP or UDP and Ethernet can be used to transport the data blocks taught by Acharya, and further given the knowledge

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that CRC, ADLER, and 16-bit checksums are well-known techniques, a person having ordinary skill in the art would have readily recognized the desirability and advantages of including the CRC or ADLER checksums or a sequential 16-bit number in the identifier taught by Acharya to ensure that the data block identifier is correctly sent over the network. Therefore, it would have been obvious to include the CRC or ADLER checksum or the sequential number in the data identifier taught by Acharya.

8. Claims 4, 5, 18, 19, 36, 42, 43, and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis, in view of what is well known in the art, for the same reasons given above with regard to Acharya.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bradley Edelman whose telephone number is 571-272-3953. The examiner can normally be reached from 9 a.m. to 5 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glen Burgess can be reached at 571-272-3949. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Bradley Edelman

BE

February 8, 2005